



A TEREX BRAND

Operator's Manual

Serial number range

GTH-5519 (*Perkins Tier III*) From serial n.: 19388
To serial n.: 24471

GTH-5519 (*Deutz Tier III*) From serial n.: 19006
To serial n.: 25040

With Maintenance
Information

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Operating Instructions

This chapter describes some techniques and provides instructions for a safe use of the machine fitted with standard forks. Before using different attachments, thoroughly read the chapter "Optional attachments".



For a safe use of the machine, always check the weight of the loads going to be handled.



Before using the machine, inspect the job site and check for possible hazardous conditions. Make sure that there are no holes, moving banks or debris that may cause you to lose the control of the machine.



Pay the greatest attention when working close to electric lines. Check their position and ensure that no part of the machine operates at less than 6 meters from the power lines.

Operating Instructions

■ ENTERING THE MACHINE (only for closed cabin)

■ ENTERING THE CAB

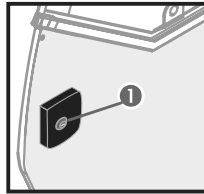


Always make sure that your hands and shoe soles are clean and dry before getting into the driving cab. Always face the machine when entering and leaving it and hold to the suitable handles.

The handler cab is equipped with an access door on the left-hand side.

Door opening from outside:

- Insert the key and release lock 1.
- Press the pushbutton 1 and open the door.

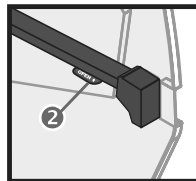


Door closing from inside:

Pull the door with force: it locks automatically.

Door opening from inside:

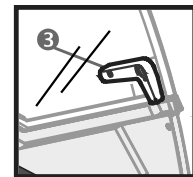
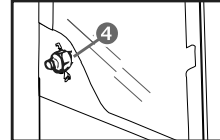
- Push lever 2 to open the door completely.
- Rotate handle 3 to open the upper section of the door and lock it against the special catch.



The upper section of the door must be secured to the rear part of the driving cab or latched to the lower section of the same door.

To unlock the door latched in open position:

- Press button 4 to unlock the door from the catch
- Once released, re-close the upper section of the door by means of handle 3.

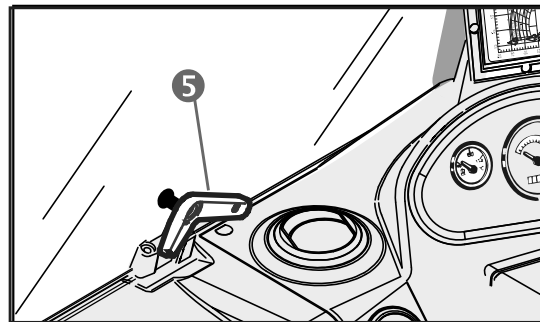


■ Leaving the cab in an emergency

In an emergency, the operator can use the front or the rear window as safety exit-ways.

The rear window has handles for partially opening the glass. Such handles are locked in position by some wing nuts which, if driven out, allow opening the glass completely.

The front window has one, 5, handle which, if turned, enables the operator to pass through.



Operating Instructions

■ ADJUSTING THE SEAT

A correct adjustment of the seat ensures the operator a safe and comfortable driving. The handler seat is fitted with devices which allow for the adjustment of the springing, the height and the distance from the controls.

- **Seat distance from the controls**

The seat is equipped with an adjusting device to slide the same seat forward or back with respect to the steering column.

To adjust the seat, pull lever **1** outwards and push the seat to the desired direction. Then release the lever and make sure that the seat locks in position.

- **Springing adjustment (optional)**

Rotate lever **2** clockwise or anticlockwise according to the springing degree required. Rotate clockwise/ anticlockwise to increase/ reduce the seat springing. To reverse this control, pull out and rotate the lever knob by 180°.

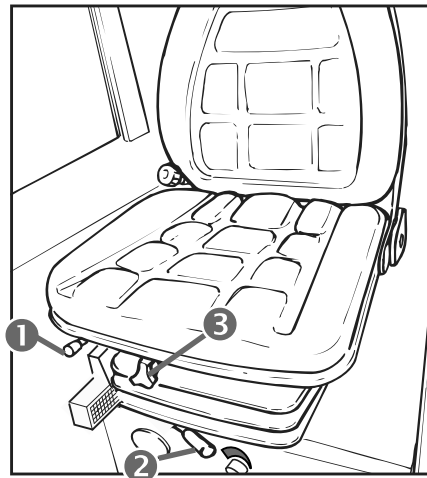
- **Height adjustment (optional)**

Turn knob **3** clockwise to lift the seat; turn it counter-clockwise to lower the seat.

In some seats height can be adjusted to three different positions. Lift the seat until you hear the click signalling that the seat is locked in position. To lower the seat, raise to end of stroke to release the mechanism, then release the seat: it will return to the bottom position.

! DANGER

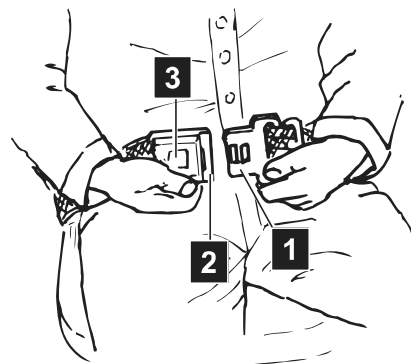
- *The seat is for one person only.*
- *Don't adjust the seat when the machine is moving.*



■ FASTENING THE SEAT BELTS

Sit correctly in the driving seat; then:

- The safety belts are equipped with reel retractor. To fasten the belt, pull tab **1** and push it into buckle **2**.
- To release the belt, push button **3** and remove the tab from the buckle.
- Make sure that the buckle is correctly located at the hip point and not on the stomach.
- Operate the end adjusters to reach the length you wish and make sure the buckle is always in the middle.



Operating Instructions

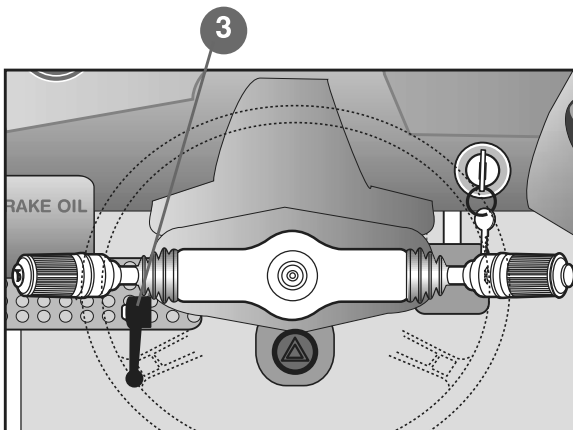
■ STEERING COLUMN ANGLE ADJUSTMENT

Both steering column and dashboard can be set to a different angle.

To adjust the steering wheel angle, unlock lever **3** and pull or push the steering wheel to the required position, then re-lock lever **3**.



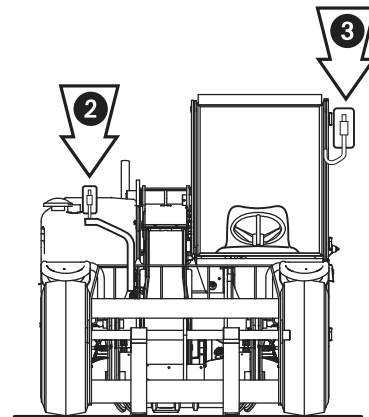
Before driving the machine, ensure the steering wheel is perfectly clamped.



■ ADJUSTING THE REAR VIEW MIRRORS

The machine is fitted with two rear view mirrors:

- The right rear view mirror **2** is located on a special supporting bracket in advanced position and allows checking the area behind the machine, on the right-hand side. To adjust its position, manually rotate the joint it is fitted with.
- The left rear view mirror **3** is placed on the left upper post of the windscreen and allows checking the area behind the machine, on the left-hand side. To adjust its position, manually rotate the joint it is fitted with.

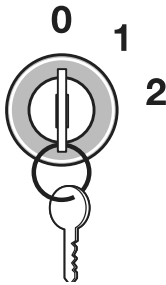


Operating Instructions

■ STARTING THE ENGINE

For the low temperature starting, see paragraph "Low Temperature Starting".

- Engage the parking brake.
- Put the forward/reverse speed selection lever to neutral.
- Step on the gas pedal.
- To start the engine, turn the ignition switch to position **2**. Release the switch when the engine starts. If the engine does not start within 20 seconds, release the key and wait at least 2 minutes before attempting again.
- After the start-up, let the engine run at idle for some seconds before engaging a gear; this allows for a gradual warm up of the engine oil and a better lubrication.
- In case of engine jump-starting, remove the booster cables (see following paragraph).



■ JUMP-STARTING THE ENGINE

! CAUTION

Do not start the engine using a quick charge booster to avoid any damage to the electronic boards.

! DANGER

When jump-starting the engine through the battery of another machine, make sure that the two vehicles cannot collide to prevent formation of sparks. Batteries give off a flammable gas and sparks may burn it and cause an explosion. Do not smoke when checking the electrolyte level.

Keep any metal object like buckles, watch straps, etc. clear of the battery positive (+) terminal. These elements can short between the terminal and nearby metal work and the operator can get burned.

The booster supply must have the same rated voltage and output of the battery installed on the handler.

To jump-start the engine:

- Turn any users off by the special control levers.
- Put the gear lever to neutral and engage the parking brake.
- Ensure the machine battery **A** is connected to the frame earth, the terminals are well tightened and the electrolyte level is regular.

! CAUTION

If the light indicators do not switch off/on when engine is running, immediately stop the machine and find and rectify the fault.



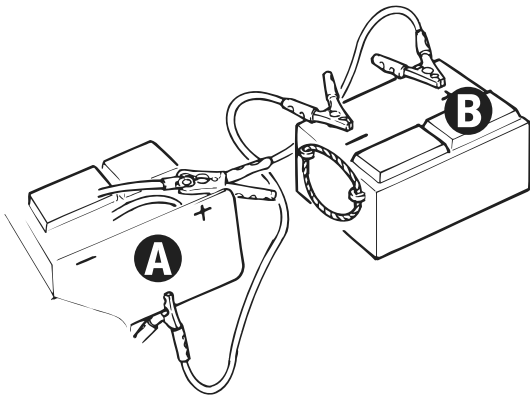
Engine cannot be started if the speed switch is not in the neutral position.

! WARNING

Once it has been started, the engine continues to run even if you leave the driving place. DO NOT LEAVE THE DRIVING PLACE BEFORE HAVING SHUT THE ENGINE DOWN, LOWERED THE BOOM TO THE GROUND, TURNED THE SPEED SWITCH TO THE NEUTRAL POSITION AND ENGAGED THE PARKING BRAKE.

Operating Instructions

- Connect the two batteries as shown in the figure. Connect first the positive terminals of the two batteries, then the negative terminal of the booster supply **B** to the machine frame earth.
- If the booster supply is installed on a second vehicle, make sure that the latter does not touch the handler. **To avoid damage to the electronic instruments of the machine, the engine of the machine where the booster supply is installed, must be stopped.**



- Turn the ignition key and start the handler.
- Disconnect the cables. Remove first the negative terminal from the frame earth, then from the booster supply. Disconnect the positive terminal from the machine battery, then from the booster supply.

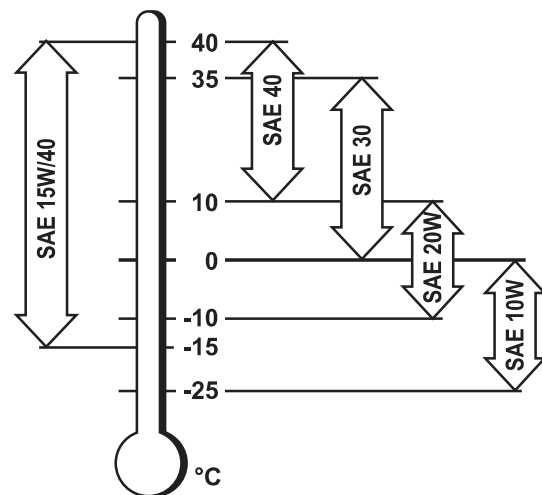
! DANGER

Use only a 12V battery; other devices like battery chargers, etc. may cause an explosion of the battery or result in damage to the electrical system.

■ LOW TEMPERATURE STARTING

In case of cold starting, use an oil with a SAE viscosity adequate to the ambient temperature. Please refer to the engine use and maintenance manual.

The machine is supplied with oil SAE 15W/40.



To start the engine from cold, proceed as follows:

- Set the forward/back speed lever to neutral position.
- Turn the ignition switch to the glow plugs preheating position and wait until the relevant warning light **11.13** goes off. Step down on the gas pedal and start the engine by turning the ignition switch. Release the switch as soon as the engine fires.
- Let the engine run at idle for a few seconds before putting a gear; this allows for a gradual warm up of the engine oil and a better lubrication.

Operating Instructions

■ STARTING THE MACHINE

When the engine reaches the running temperature, ensure all parts are in transfer position and the gearbox lever is in neutral. Then, proceed as follows:

- Select the required steering mode.
- Select the required gear (forward or reverse).
- Release the parking brake.
- Slowly step on the gas pedal to start moving off.

WARNING

Do not operate the forward/reverse gear lever when the machine is running. The machine would reverse the running direction abruptly and you could seriously be injured.

■ STOPPING AND PARKING THE MACHINE

When possible, stop the machine on a dry, level and solid ground. Then:

- Bring the machine to a smooth stop by easing up the gas pedal and stepping down on the brake pedal.
- Set the forward/back speed lever to neutral position.
- Engage the parking brake and ensure its indicator light switches on.
- Release the service brake pedal.
- Rest the attachment coupled to the boom flat on the ground.
- Rotate the ignition key to "0" and remove the key.
- Leave the driving cab and lock the cab door.

WARNING

Always face the machine when getting off the driving cab; make sure that your hands and shoe soles are clean and dry, and hold to the handholds to prevent falls or slips.

WARNING

Always engage the parking brake after stopping the machine to prevent possible accidental motions of the vehicle.

Operating Instructions

■ USING THE LOAD CHARTS

The load charts 1 indicates the maximum permissible load in relation to the boom extension and the type of attachment used. To operate under safe conditions, always refer to these charts.

The extension level of the boom can be checked with the help of the letters (A, B, C, D, E) painted on the same boom (pos.3), while the actual degrees of inclination of the boom are shown by the angle indicator 2.

All the load charts are placed into a dedicated holder installed in the right side of the cabin, on the top of the dashbord. The tag 4 located at the top of each load chart represents the type of attachment used.

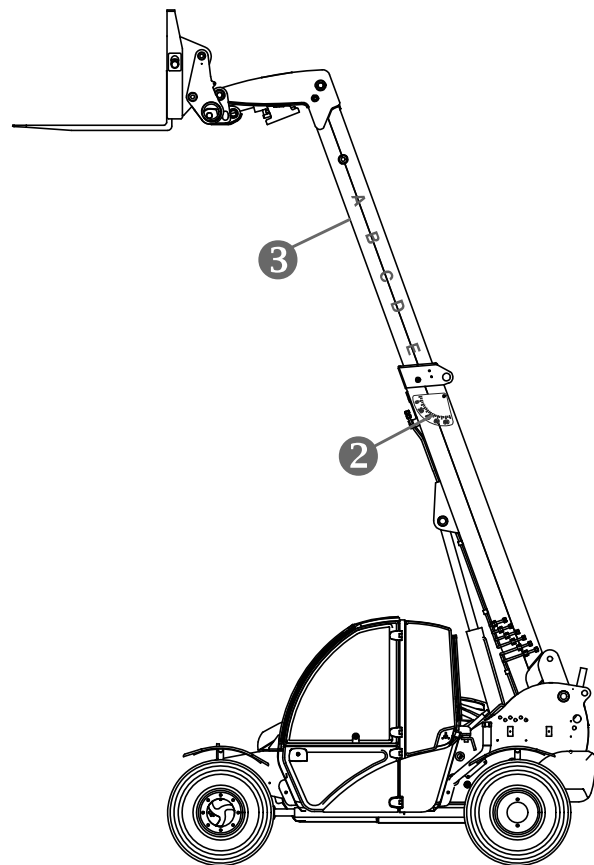
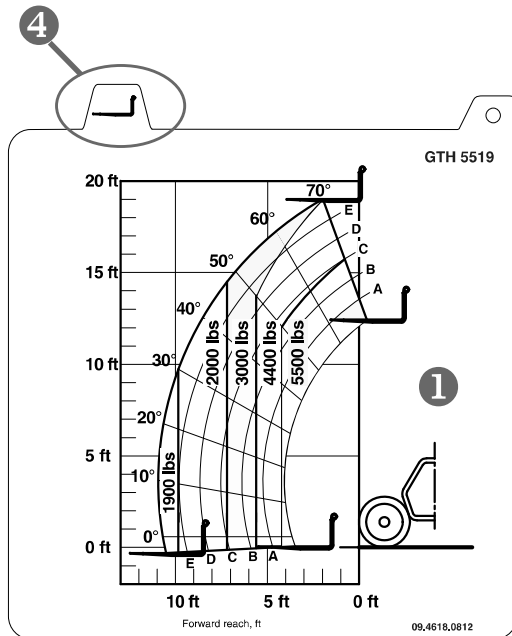
! WARNING

The load charts applied on the cab windscreen refer to a stationary machine standing on a solid and level ground.

Raise the load some centimetres and check its stability before raising it completely.

! WARNING

The load charts illustrated in this manual are given only as a mere example. To define the payload limits, refer to the load charts applied within the cab of your machine.



Operating Instructions

■ HANDLING LOADS

■ Adjusting the forks

With FEM forks (optional)

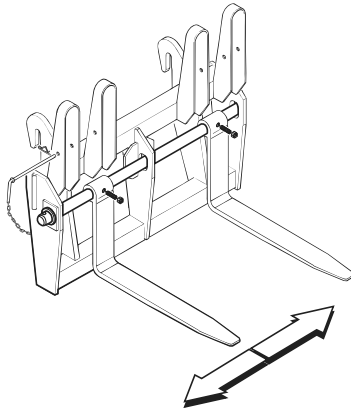
Forks shall be spaced to suit the load going to be handled. For this purpose:

- Lift the clamping lever of the forks.
- Slide the forks to the desired position, then re-lock the lever.

With floating forks

In the case of floating forks:

- Loosen the nut of the locking screws.
- Raise the forks and slide them on the pivot until correct spacing.
- Lock the screws re-tightening the nut.



! DANGER

- *The centre of gravity of the load must always be halfway between the forks.*
- *Ensure you exactly know the weight of the load before handling it.*
- *When extending the boom, do not exceed the payload limit.*
- *Refer to the payload limits given in the load chart applied on the cab windscreen or in the quick user's guide.*
- *Space the forks as wide as possible to suit the load being handled.*

Operating Instructions

■ WORKING PHASES

When forks are correctly spaced, the handler is ready to use.

Work can be subdivided into three different phases: loading, transfer and unloading.

Loading phase

- Approach the load to the handled perpendicularly and check that the machine is level on the inclinometer.
- Insert the forks under the load and raise the load some centimetres.
- Pitch the forks back to retract the load.

Transfer phase

- Do not start or brake abruptly.
- Drive to the unloading point cautiously and keep the load 8÷12 in from the ground.
- Suit the machine speed to the ground conditions to avoid dangerous jumps, side skids of the vehicle and possible load falls.
- When driving on slopes or ramps, hold the load uphill.

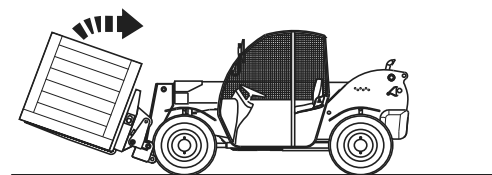
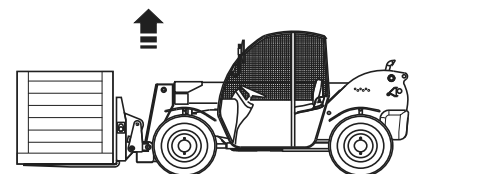
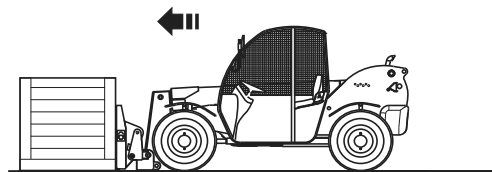
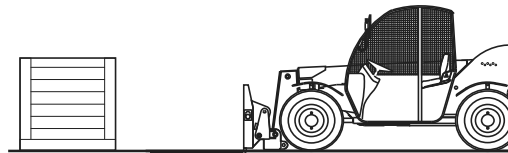


Do not drive on slopes sideways; this wrong manoeuvre is one of the main reasons for accidents due to vehicle overturning.

Unloading phase

- Drive to the unloading point with straight wheels and bring the machine to a smooth stop leaving enough space to operate the boom.
- Put the parking brake and set the transmission to neutral.
- Position the load some centimetres above the desired position and set the forks level.
- Lower the load and make sure it is level.

- Carefully withdraw the forks by operating the boom retraction control and, if necessary, raise or lower the boom as forks come out.
- When the forks are clear of the load, set them to transfer position.
- Release the parking brake and start a new working cycle.



Operating Instructions

■ CHANGING THE ATTACHMENT

CAUTION

Use only attachments directly manufactured or recommended by Terexlift and detailed in the "Optional attachments" section.

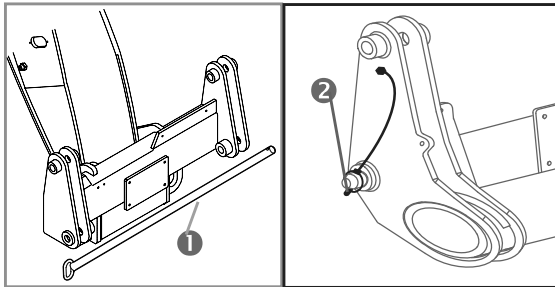
WARNING

After substitution, visually check the attachment is correctly coupled to the boom, before operating the machine. A wrongly coupled attachment may result in damage to persons or things.

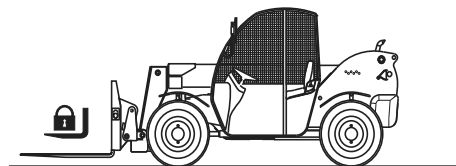
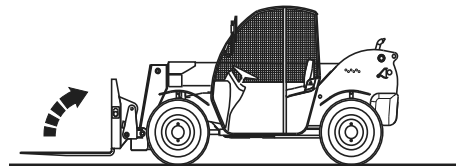
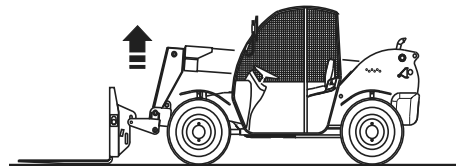
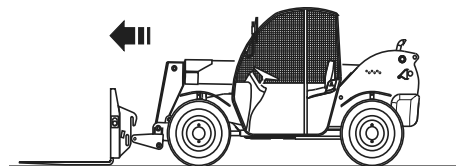
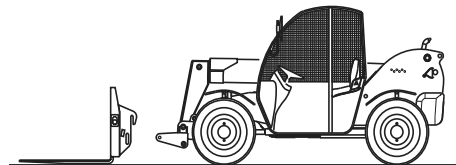
Version with MECHANICAL LOCKING

To change an attachment, operate as follows:

- Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
- Disconnect the quick connectors of the attachment (if any).
- Pull out pin **1** locking the attachment after removing the safety split-pin **2** at its end.



- Rest the attachment flat on the ground.
- Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
- Move back with the machine and drive to the new attachment to be coupled.
- Hold the frame pitched forward and hook the upper lock of the new attachment.
- Retract and raise the attachment some centimetres. It will centre automatically on the quick coupling frame.
- Refit pin **1** fixing it with its safety split-pin **2**.
- Re-couple the connectors of the attachment (if any).

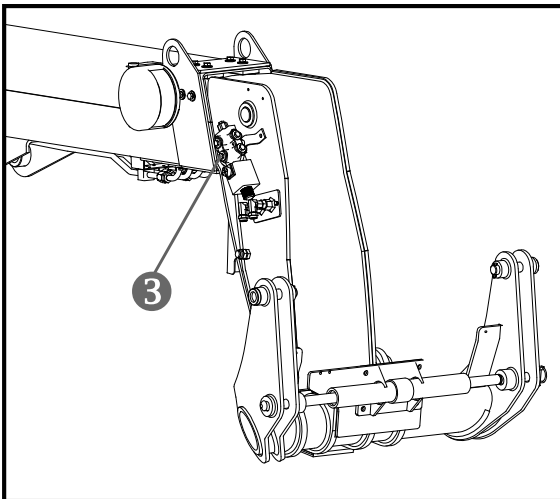


Operating Instructions

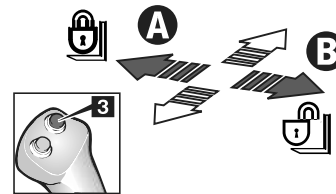
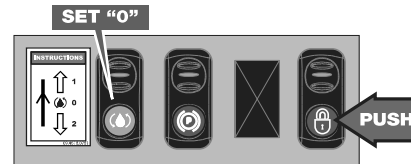
Version with HYDRAULIC LOCKING (OPTIONAL)

To change an attachment, operate as follows:

- Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
- Disconnect the quick connectors of the attachment (if any) from the couplings **3**.



- Rest the attachment flat on the ground.
- Set the Flow Reversal Button to "0" (central position), as shown in the following draft .



- Free the attachment pressing joystick button **3** together with the dashboard enabling button and smoothly shift the lever to position **B**.
- Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
- Move back with the machine and drive to the new attachment to be coupled.
- Hold the frame pitched forward and hook the upper lock of the new attachment.
- Retract and raise the attachment some centimetres. It will centre automatically on the quick coupling frame.
- Coupling the attachment pressing joystick button **3** together with the dashboard enabling button and smoothly shift the lever to position **A**.
- Re-couple the connectors of the attachment (if any).

Transporting The Machine

■ MOVING A DISABLED MACHINE

Tow the machine only when no alternative is possible, since this operation may result in serious damage to the transmission. When possible, repair the machine on site.

When the machine shall absolutely be towed:

- Unlock the parking brake.
- Tow the machine for short distances and at a low speed only (less than 3 mi/h).
- Use a rigid drawbar.
- Select the two-wheel steer.
- Set the forward/back speed lever to neutral position.
- Raise the front wheels of the machine.
- When possible, start the engine and use the hydraulic drive and the braking system.

■ ROAD OR SITE TRANSFER

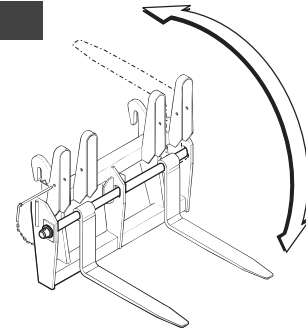
When travelling on public roads, strictly obey the local or national road traffic regulations.

Besides, take into account the following general precautions:

- Align the rear wheels.
- Cover the teeth of the conventional forks with the special guard; or withdraw the floating forks.

NOTICE

With the floating forks pitched back, do not move the fork pitching cylinder as the machine could suffer from damage.



- Retract boom and attachment to transfer position.
- The transfer speed of the vehicle will depend on the engine rpm and the position of the control lever.

NOTICE

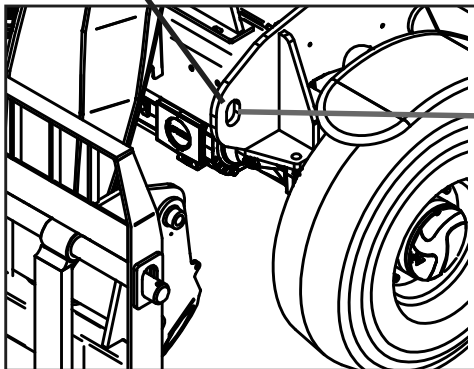
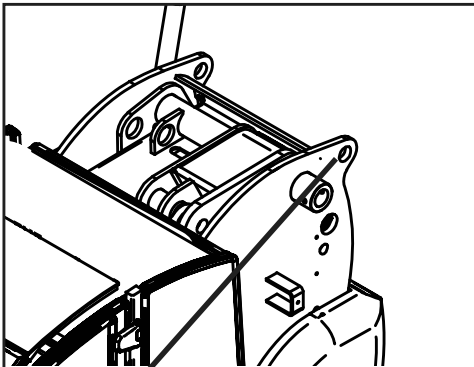
Public road circulation is allowed only for transferring an unloaded machine. Do not use the machine to tow trailers.

Transporting The Machine

■ LIFTING THE MACHINE

When the machine shall be lifted, use only means having a suitable capacity. The characteristic data are detailed in the relevant chapter of this manual and on the identification plate.

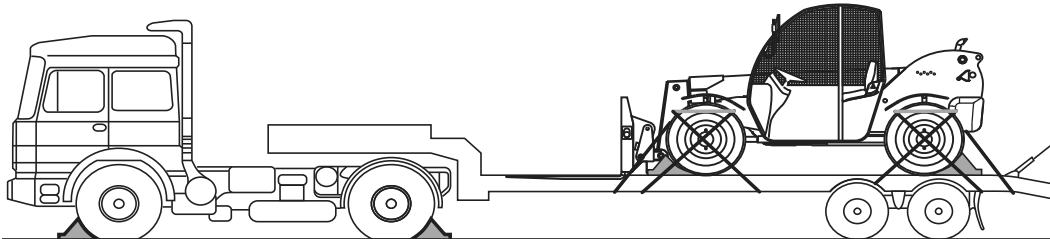
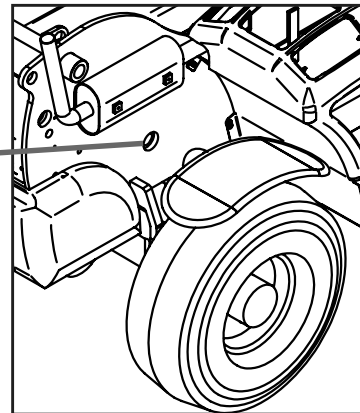
For the machine lifting, anchor the chains to the special lugs on the machine (marked with the decal below).



■ TRANSPORTING THE MACHINE ON OTHER VEHICLES

To transport the machine on another vehicle, follow the steps below:

- Ensure ramps are correctly positioned.
- Retract the boom to transfer position.
- Carefully drive the machine onto the transporting vehicle.
- Put the parking brake and rest the attachment flat on the vehicle platform.
- Ensure the overall dimensions do not exceed the allowed limits.
- Shut the engine down and close the driving cab of the machine.
- Secure the machine to the vehicle platform by wheel-chocks.
- Anchor the machine to the transporter's platform by fixing the chains to the special eyebolts **A** on the chassis.



Transporting The Machine

■ PARKING AND STORAGE

■ Short inactivity

Always park the machine in a safe way after a working day, a shift and at night.

Take all precautions to prevent damage to those persons who will approach the machine while stationary:

- Park the machine so that it does not hinder other operations.
- Lower the boom fitted with attachment on the ground.
- Disengage the transmission and put the parking brake.
- Remove the key from the ignition switch and lock the cab door.



Leaving a battery connected can result in shorts and, as a consequence, in a fire.

■ Machine storage

In case of extended inactivity of the machine, follow the above precautions. Additionally:

- Wash the machine thoroughly. For a better cleaning, remove grills and protection casings.
- Carefully dry all machine parts by blowing some compressed air.
- Lubricate the machine thoroughly.
- Do a walk-around inspection and replace any worn or damaged part.
- Re-paint any worn or damaged part.
- Remove the battery, smear its terminals with vaseline and store it in a dry place. Battery can be used for other purposes. Otherwise, periodically check its charge level.
- Refuel the tank to prevent internal oxidation.
- Store the machine in a sheltered and well-ventilated place.
- Start the engine for about 10 minutes at least once a month.
- When weather is particularly cold, empty the radiator.

NOTICE

Always remember that the ordinary maintenance must be carried out even during the machine inactivity. Pay particular attention to the fluid levels and to those parts subject to ageing. Before re-starting the machine, carry out an extraordinary maintenance and carefully check all mechanical, hydraulic and electrical components.

Transporting The Machine

■ CLEANING AND WASHING THE MACHINE

Clean the machine in accordance with the following instructions:

- Remove any oil or grease traces with a dry solvent or a volatile mineral alcohol
- Before assembling a new part, remove any protection product (rust-preventer, grease, wax etc.).
- Remove any trace of rust from metal parts with some emery cloth before smearing the part with a protection product (rust-preventer, paint, oil etc.).



Do not use water at high pressure for washing the machine and especially the main valve, the solenoid valves and electrical parts.

External washing

Before washing the machine, check that the engine is shut down and the doors and windows are closed. Do not, at any times, use fuel to clean the machine. Use water or some steam. In cold climates, dry the locks after washing or smear them with an antifreeze.

Before using the machine again, check its conditions.

Internal washing

Wash the machine interior with some water and a sponge. Do not use water at high pressure. After washing, dry with a clean cloth.

Washing the engine

Before washing the engine, protect the air intake filter to prevent water from entering the circuit.



If the machine shall be used in a marine or equivalent environment, protect it against salt deposits with an adequate treatment against saltiness to prevent rust formation.

■ MACHINE DISPOSAL



At the end of the machine life, call in a specialised firm to dispose of it in compliance with the local or national regulations.

■ Battery disposal



Used lead-acid batteries cannot be disposed of as normal industrial solid wastes. Because of the presence of harmful substances, they must be collected, eliminated and/or recycled in accordance with the laws of the UE.

Used batteries must be kept in a dry and confined place. Make sure the battery is dry and the cell plugs are tight. Place a sign on the battery to warn of not using it. If before disposal the battery is left in the open air, it will be necessary to dry, smear the box and the elements with a coat of grease and tighten the plugs. Do not rest the battery on the ground; it is always advisable to rest it on a pallet and cover it. The disposal of batteries shall be as rapid as possible.